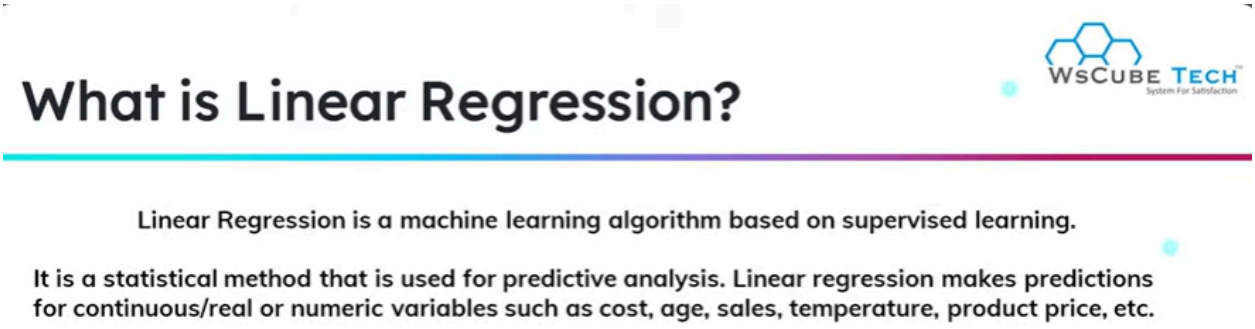
Linear Regression single variable

What is Linear Regression?



Two types of Linear Regression:

Real-life examples include:

1. **Agriculture** – Predicting the required amount of water and pesticides for crops.
2. **Home Price Prediction** – Estimating the price of a house based on its area.
3. **Study Time Analysis** – Determining how much time a person should spend on learning.

Linear Regression Real World Application

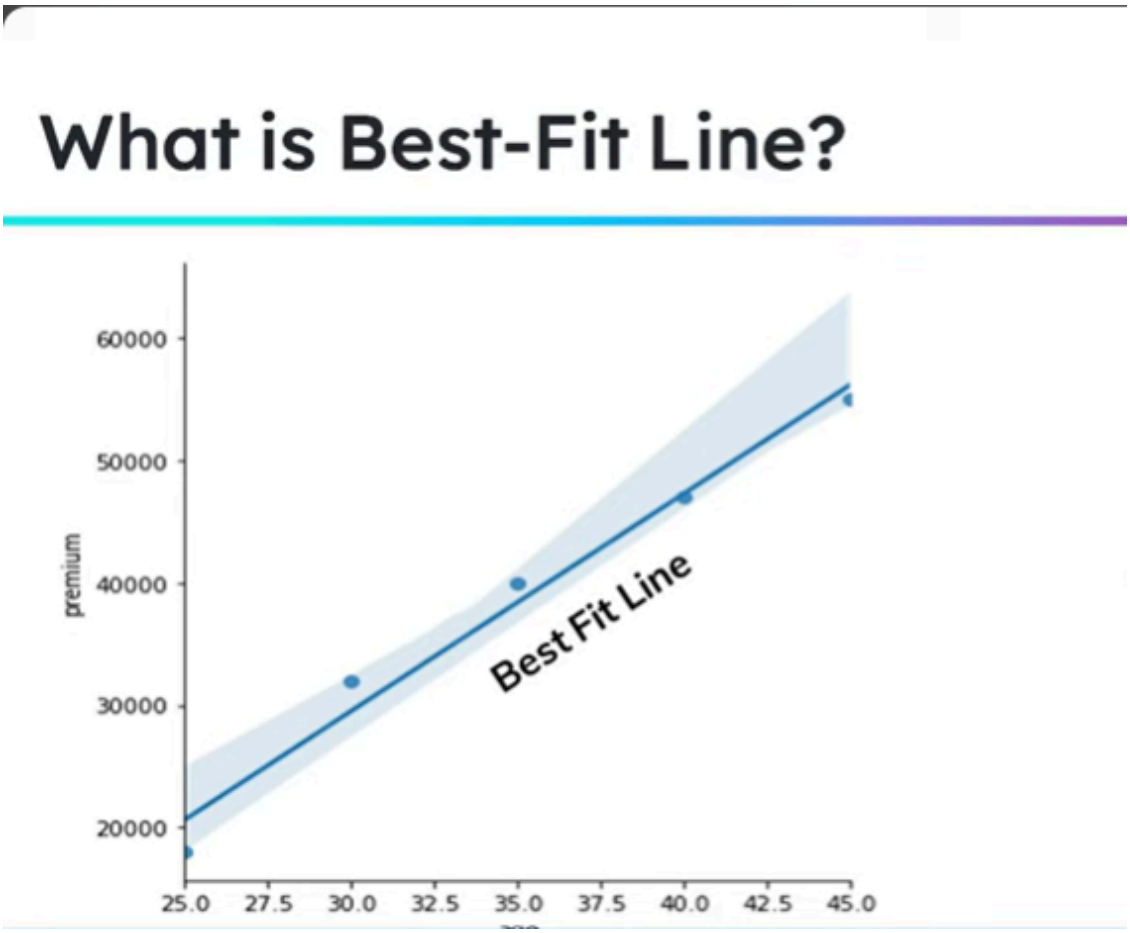
Data set:

Term Insurance Dataset

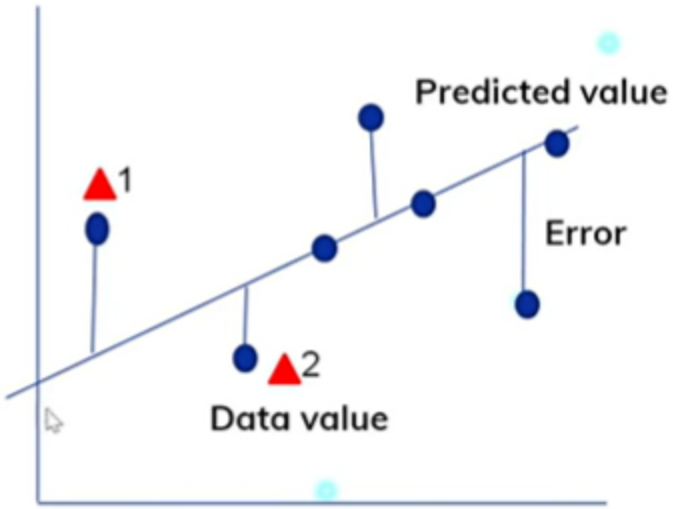
Age	Premium
25	18000
30	32000
35	42000
40	47000
45	55000

We'll find out the Premium whose age is 21 and 50

graph :



visualization natural graph:



Linear Equation: